HD CCTV Total Solution

IR Dome Camera User Manual

The product image shown above may differ from the actual product.
Please use this camera with a DVR which supports HD video recording.
Please read the instructions thoroughly before using the product.

696Z

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d206x_V1.1

IMPORTANT SAFEGUARD

CAUTION

RISK OF ELECTRIC SHOCK

CAUTION:

To reduce the risk of electric shock, do not expose this apparatus to rain or moisture.

Only operate this apparatus from the type of power source indicated on the label.

The company shall not be liable for any damages arising out of any improper use, even if we have been advised of the possibility of such damages.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

RoHS conform

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

CE

CE Mark

This apparatus is manufactured to comply with the radio interference.

The company does not warrant that this manual will be uninterrupted or error-free. We reserve the right to revise or remove any content in this manual at any time.

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FEATURES

1. 1/ 2.9" CMOS Sensor
2. 1080P video output
3. f2.8 ~ 12mm vari-focal lens
4. Low light sensitivity of 0.1 Lux / F1.4(Wide)~F2.8(Tele), 0Lux (IR LED ON)
5. Day and night 24-hour surveillance with IR effective distance up to 20 meters
6. IP66 for weather-proof application
7. Camera parameters adjustable when used with HD CCTV DVR

PACKAGE CONTENT

- IR dome camera
- User manual
- Camera case
- Wrench
- Screws & wall plugs
- Tool for focal length & focus adjustment

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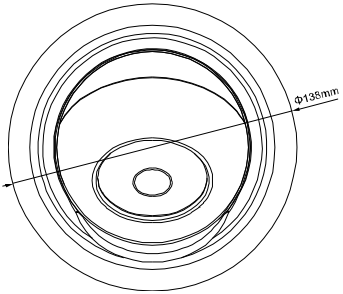
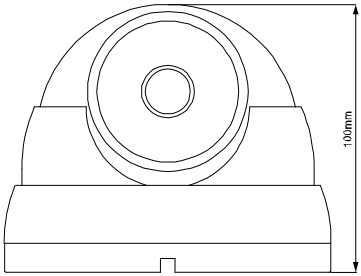
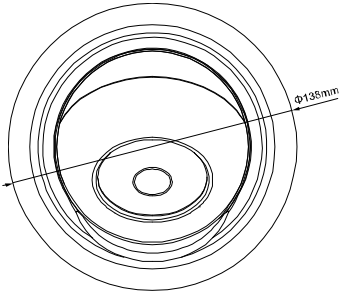
DIMENSIONS*

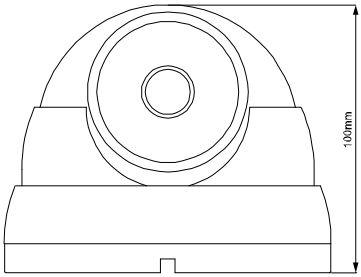




*Dimensional Tolerance: ± 5mm

DIMENSIONS*





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SPECIFICATIONS*

Pick-up Element	1/ 2.9" CMOS image sensor
Number of Pixels	1936(H) x 1096(V)
Video Frame Rate	1080P@30fps / 1080P@25fps
Min. Illumination	0.1 Lux / F1.4(Wide)~F2.8(Tele), 0 Lux (IR LED ON)
S/N Ratio	More than 48dB (AGC OFF)
Shutter Speed	1/30 (1/25) sec ~ 1/33750 (1/28125) sec
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8
Lens Angle	Wide: 103° (Horizontal) / 54° (Vertical) / 122° (Diagonal) Tele: 31° (Horizontal) / 17° (Vertical) / 36° (Diagonal)
IR LED	24 units
IR Effective Distance	Up to 20 meters
IR Shift	YES
Day & Night Mode	YES
IRIS Mode	AES
White Balance	AUTO / INDOOR / OUTDOOR / USER
AGC	High / Middle / Low / Off
Sharpness	Adjustable
IP Rating	IP66
Operating Temperature	-20℃ ~ 40℃
Power Source (±10%)	DC12V / 1A
Current Consumption (±10%)	210mA (IR OFF); 430mA (IR ON)

* The specifications are subject to change without notice.

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INSTALLATION

Step1: Disassemble the camera case into three parts as illustrated in *Figure 1*.

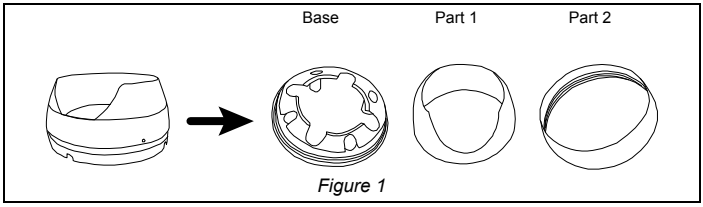

Figure 1

Step2: Locate where you want to install this camera (wall or ceiling), and drill holes on the wall or ceiling for securing the bracket and routing the cables (if necessary).

INSTALLATION

Step1: Disassemble the camera case into three parts as illustrated in *Figure 1*.

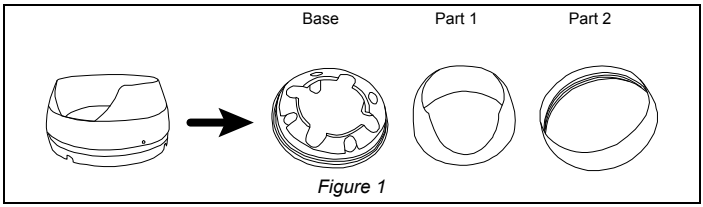

Figure 1

Step2: Locate where you want to install this camera (wall or ceiling), and drill holes on the wall or ceiling for securing the bracket and routing the cables (if necessary).

Step3: Attach the bracket to the wall (or ceiling), and make sure the cables are routed and arranged properly in the bracket, as shown in *Figure 2*.

Step4: Secure the bracket to the wall (or ceiling), as shown in *Figure 4*.

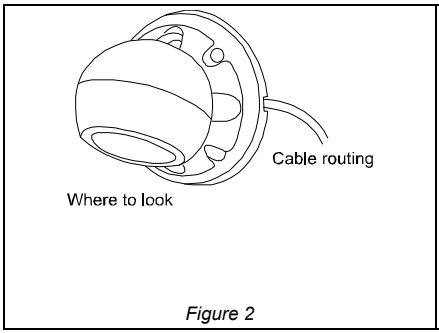

Figure 2

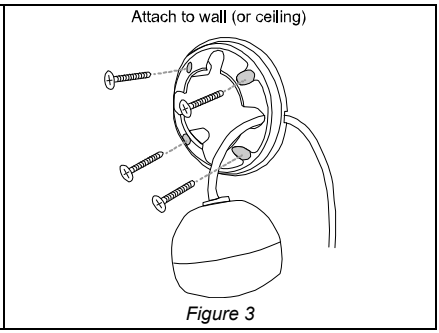

Figure 3

Step3: Attach the bracket to the wall (or ceiling), and make sure the cables are routed and arranged properly in the bracket, as shown in *Figure 2*.

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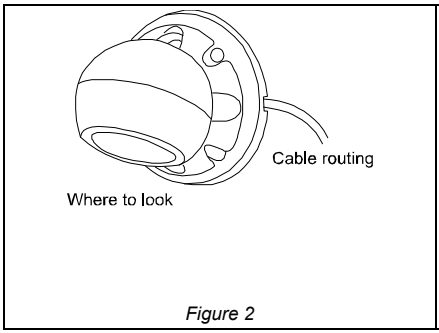

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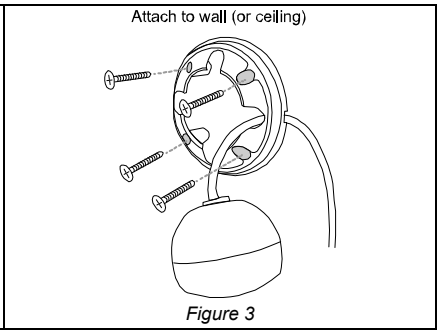


Figure 3

Step5: Slightly adjust the camera lens to where it's supposed to face, and replace Part 1 and Part 2 back, as shown in *Figure 4* and *Figure 5*.

Step6: Hold the camera lens and Part 1, and rotate only Part 2 clockwise, as shown in *Figure 5*.

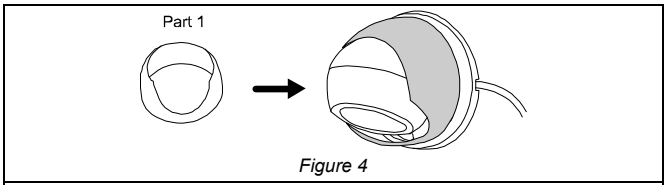


Figure 4

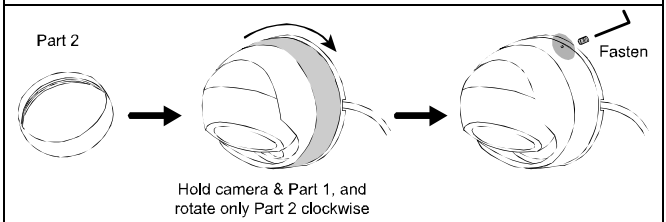


Figure 5

Step7: Power on your camera, and check the viewing angle on the PC.

Step8: Adjust the position and the viewing angle of the camera, if necessary.

Step5: Slightly adjust the camera lens to where it's supposed to face, and replace Part 1 and Part 2 back, as shown in *Figure 4* and *Figure 5*.

Step6: Hold the camera lens and Part 1, and rotate only Part 2 clockwise, as shown in *Figure 5*.

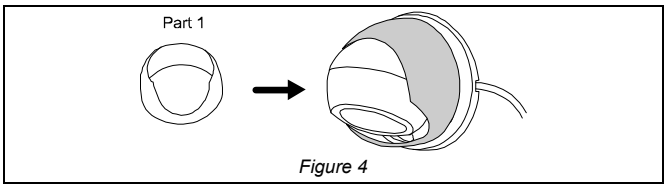


Figure 4

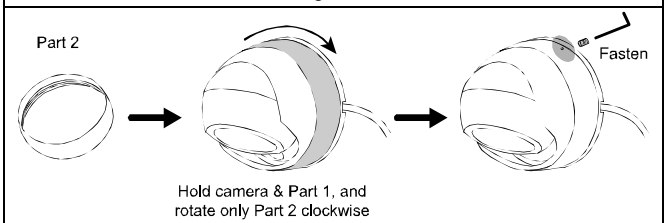
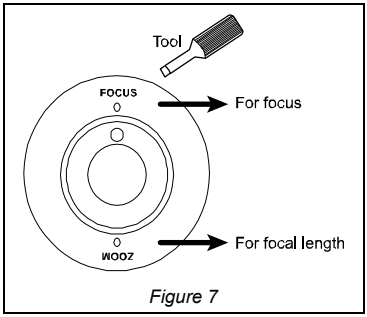


Figure 5

Step7: Power on your camera, and check the viewing angle on the PC.

Step8: Adjust the position, viewing angle, focal length and focus of the camera, if necessary.

For focal length and focus adjustment, please check *Figure 7* to know where to do.



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Step8: Adjust the position, viewing angle, focal length and focus of the camera, if necessary.

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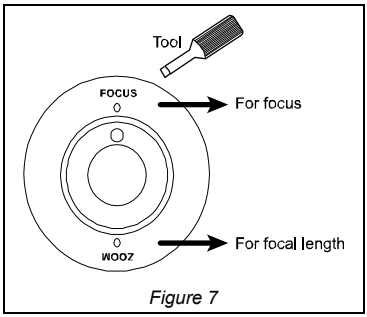

Figure 7

CONNECTION

1. DC12V Input Terminal

   Connect the power terminal of the camera to a DC 12V regulated power supply.

Note: Please use the correct power adaptor, DC12V (regulated), to operate this unit. The power tolerance of this unit is DC12V ± 10%. Over maximum DC 12V power input will damage this unit.

1. Video Output Connector (VIDEO OUT)

   Connect the camera video output to the video input of a DVR with 75Ω coaxial cable.

Note: To ensure the camera has sufficient protection against moisture, an extra waterproof measure, such as by using an insulating tape, must be used to cover the power and video connectors after connection.

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CAMERA PARAMETERS

This camera series has its own configuration menu, and either of the two methods below is available to access the menu based on the camera model you have.

Note: The methods below are available only when the camera is used with our brand's HD CCTV DVR.

- **Method 1**

  On the DVR live view, click the channel which connects this camera to display in the full screen mode, and select .

  Click "↵ to enter the menu of camera parameters.

- **Method 2**

  On the DVR live view, right click to show the DVR main menu, and select **ADVANCED CONFIG** → **DCCS**. Then, select the channel which connects this camera, and click SETUP to enter the menu of camera parameters.

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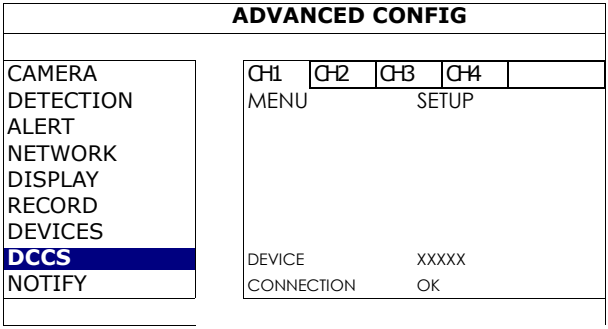
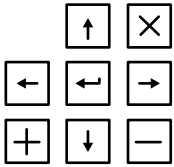
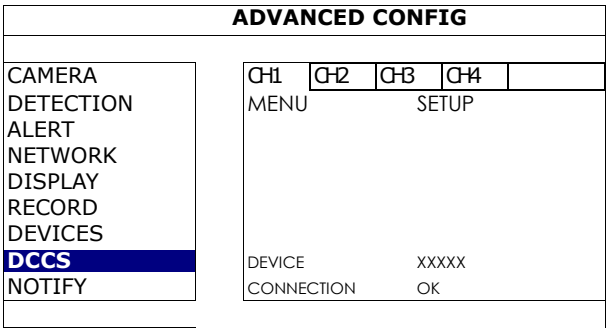


When the camera menu is entered, you'll see the keys on the bottom right corner to move between and change those configurations.



↑↓	Move between selections.
←→	Change settings.
↵	Call the camera parameters menu or enter the currently-selected item.
X	Quit the camera parameters mode.



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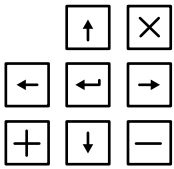

↑↓	Move between selections.
←→	Change settings.
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X	Quit the camera parameters mode.

MENU			DESCRIPTION
EXPOSURE	LENS TYPE	FIX	No function.
	SHUTTER	AUTO	Automatically adjust the shutter speed for exposure based on the current environment.
		1/100 1/200 1/250 1/500 1/1000 1/2000 1/4000 1/10000	Shutter Speed is a function that can adjust the duration of the electronic shutter to produce optimum image quality. Select the shutter speed suitable for your environment.

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MENU			DESCRIPTION
EXPOSURE	AGC	OFF / LOW / MIDDLE / HIGH	Set the level of Auto Gain Control to detect and enhance the image signals when the light condition is poor. The higher the value, the stronger the signals will be enhanced, and the more noise the image will get.
	EXPOSURE VALUE	1 ~ 17	When **AUTO** is selected and you're not satisfying with current image brightness, you can manually adjust the value to add or decrease the exposure level.
WHITE BALANCE	MODE	AUTO	Automatically adjust the white balance based on the surrounding environment.
		INDOOR / OUTDOOR	Fix the white balance mode to **INDOOR** / **OUTDOOR** depending on your environment.
		USER	Manually adjust the white balance parameters. Choose **USER**, and move down to adjust **R-GAIN** / **B-MODE** to customize your own white balance parameters.

MENU			DESCRIPTION
EXPOSURE	AGC	OFF / LOW / MIDDLE / HIGH	Set the level of Auto Gain Control to detect and enhance the image signals when the light condition is poor. The higher the value, the stronger the signals will be enhanced, and the more noise the image will get.
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WHITE BALANCE	MODE	AUTO	Automatically adjust the white balance based on the surrounding environment.
		INDOOR / OUTDOOR	Fix the white balance mode to **INDOOR** / **OUTDOOR** depending on your environment.
		USER	Manually adjust the white balance parameters. Choose **USER**, and move down to adjust **R-GAIN** / **B-MODE** to customize your own white balance parameters.

MENU			DESCRIPTION
DAY & NIGHT	MODE	EXT	Use the external light sensor we added in the camera to detect the surrounding light condition and switch to color or B/W mode. If you're not satisfying with the mode switch time, move down to **D ► N LEVEL** / **N ► D LEVEL** to manually adjust the sensitivity. The higher the value is, the higher the sensitivity is and quicker the mode is switched.
		COLOR	Always keep the day and night mode to day mode.
		B/W	Always keep the day and night mode to night mode.
IMAGE SET	BRIGHTNESS	1 ~ 256	Set the level of brightness to adjust the brightness of the image. The more the value, the brighter the image will be.
	CONTRAST	1 ~ 256	Set the level of contrast. The more the value, the more the contrast level of the image will be.

MENU			DESCRIPTION
DAY & NIGHT	MODE	EXT	Use the external light sensor we added in the camera to detect the surrounding light condition and switch to color or B/W mode. If you're not satisfying with the mode switch time, move down to **D ► N LEVEL** / **N ► D LEVEL** to manually adjust the sensitivity. The higher the value is, the higher the sensitivity is and quicker the mode is switched.
		COLOR	Always keep the day and night mode to day mode.
		B/W	Always keep the day and night mode to night mode.
IMAGE SET	BRIGHTNESS	1 ~ 256	Set the level of brightness to adjust the brightness of the image. The more the value, the brighter the image will be.
	CONTRAST	1 ~ 256	Set the level of contrast. The more the value, the more the contrast level of the image will be.

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MENU			DESCRIPTION
IMAGE SET	COLOR GAIN	1 ~ 256	Set the level of color saturation. The more the value, the more saturated the color will be, but the more noise the image will get.
	SHARPNESS	1 ~ 256	Set the level of sharpness to enhance the clarity of image detail by adjusting the aperture and sharpening the edges. The more the value, the sharper the image will be.
	NR	OFF / LOW / MIDDLE HIGH	Set the noise reduction mode to **LOW** / **MIDDLE** / **HIGH** to suppress the noise based on the current environment, or select **OFF** to disable this function.
	MIRROR	NONE / H / V / HV	Turn the images horizontally (**H**) or vertically (**V**), or horizontally & vertically (**HV**) simultaneously based on your installation situation when necessary.

MENU			DESCRIPTION
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	NR	OFF / LOW / MIDDLE HIGH	Set the noise reduction mode to **LOW** / **MIDDLE** / **HIGH** to suppress the noise based on the current environment, or select **OFF** to disable this function.
	MIRROR	NONE / H / V / HV	Turn the images horizontally (**H**) or vertically (**V**), or horizontally & vertically (**HV**) simultaneously based on your installation situation when necessary.

MENU			DESCRIPTION
IMAGE SET	LANGUAGE	ENGLISH / 中文(簡)	Select the language of the menu: English / Simplified Chinese.
FUNC. SET	MOTION DETECTON*	SCREEN ALARM	Select **ON** to enable motion detection or **OFF** to disable this function.
		PAD OUTPUT	No function.
		SECTION	Select the area for motion detection.
		SENSITIVITY	Select the sensitivity for motion detection from **LOW**, **MIDDLE** and **HIGH**. You'll see a default masking area on the screen.
	PRIVACY	MASKING	Select **ON** / **OFF** to enable / disable this function.
		COLOR	Select a color to show area masking.

* The function here is for this camera only, and the detection log will be not noted in the DVR.

MENU			DESCRIPTION
IMAGE SET	LANGUAGE	ENGLISH / 中文(簡)	Select the language of the menu: English / Simplified Chinese.
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		SECTION	Select the area for motion detection.
		SENSITIVITY	Select the sensitivity for motion detection from **LOW**, **MIDDLE** and **HIGH**. You'll see a default masking area on the screen.
	PRIVACY	MASKING	Select **ON** / **OFF** to enable / disable this function.
		COLOR	Select a color to show area masking.

* The function here is for this camera only, and the detection log will be not noted in the DVR.

MENU			DESCRIPTION
FUNC. SET	PRIVACY	HEIGHT / WIDTH / LEFT / RIGHT / TOP / BOTTOM	Set the area to mask.
	SYSTEM SETUP	OSD COLOR	Select the color for this OSD display.
		OSD BG	Select the background color for this OSD display.
RESET	FACTORY MODE		Enable to restore the camera parameters to factory default values. The camera image will flash once when the reset is done.
SAVE & EXIT	SAVE & EXIT		Select **YES** to save and exit, or select **NO** to exit without saving.

MENU			DESCRIPTION
FUNC. SET	PRIVACY	HEIGHT / WIDTH / LEFT / RIGHT / TOP / BOTTOM	Set the area to mask.
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FAQ

Q: The image quality at night is too dark. What can I do to improve it?

A: Please go to the camera's parameter setting page as described in the section of "CAMERA PARAMETERS", and select **EXPOSURE** -> **AGC** to change the value to **MIDDLE**, and check again.

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